

## Limited Seats available

Applications will be accepted on first come first serve basis.

## Eligibility for Participation

The workshop is open to faculty members from Academic institutes (Diploma/Degree/Science etc.). Research and Master students, Municipalities, and Consultancy organizations are also eligible to attend in the STTP.

## Registration Fee

Registration fee for the programme shall be ₹500 for Master/Research students, ₹1000 for faculty from academic institutions and ₹2000 for participants from industries and consultants.

Registration fee includes registration kit, course material, tea, snacks, and working lunch during course. Accommodation in institute guest house/ hostels shall be provided to participants upon prior request on payment basis. The participants have to bear their own travelling expenses. The nonrefundable registration fees should be sent in the form of a Demand Draft in favour of "Director SVNIT, TEQIP IRG" payable at Surat.

The completed registration form may be sent either as an e-mail attachment to Coordinators or as a hard copy on or before 15/06/2019. The selected applicants will be intimated by 15/06/2019 by e-mail or on institute website.

## Waste to Energy

It is about creating economic benefits out of what was traditionally regarded as waste. It requires fundamental knowledge, characterization of waste, options availability and their feasibility. The important feature is the acceptance of non-conventional techniques. Therefore, this course has a promise to provide all these aspects along with the hand on experience of various technique in lab.

## KEY FEATURES

- Φ Waste to electricity  
Fundamentals and scope of different techniques
- Φ Bio Electrochemical System  
Fundamentals, significance, limitation and different aspects of Microbial Fuel Cells (MFCs), Osmotic MFC, Benthic MFC, and Microbial electrolytic cell (MEC), etc.
- Φ Decentralized Wastewater treatment System  
Conversion of waste to biogas using wastewater and solid waste, fundamentals, scope, reuse and recycling of WW, DE-WATs & effect of NPs, etc.
- Φ Electrochemical Techniques  
Cyclic Voltammetry, Electrochemical Impedance spectroscopy, Tafel, etc.
- Φ Laboratory session and hands on experience  
Different techniques and systems
- Φ Power Management System
- Φ Plant/Industry visit and Panel Discus-

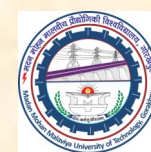
## Coordinators

Dr. A. K. Mungray (SVNIT, Surat)  
Dr. V. N. Lad (SVNIT, Surat)  
Dr. Alka A. Mungray (SVNIT, Surat)  
Dr. Vitthal L. Gole (MMMUT, Gorakhpur)  
Dr. Ravi Shankar (MMMUT, Gorakhpur)

## Contacts for Correspondence

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Programme Venue:  
Chemical Engg Dept., SVNIT-Surat

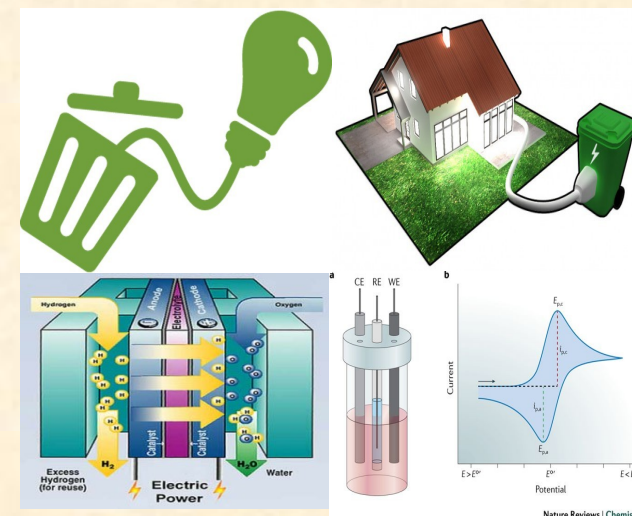


## A TEQIP III SPONSORED SHORT TERM TRAINING PROGRAMME (STTP)

## “Waste to Energy: Fuel Cell and Electrochemical Techniques” 17-21 June, 2019

*In Collaboration with*

Department of Chemical Engineering,  
Madan Mohan Malaviya University of  
Technology (MMMUT)  
Gorakhpur-273010, Uttar Pradesh



Organized by;

Department of Chemical Engineering  
S. V. National Institute of Technology (SVNIT)  
Surat – 395 007, Gujarat,  
INDIA



# “Program the function to transform waste into wealth”

## About Surat

Surat is an important industrial city of the country with clean and wide roads. It is well known worldwide for its textiles and diamond industries. Surat is situated on the main western railway route between Vadodara and Mumbai. The institute is located at Ichchhanath on Surat-Dumas road at a distance of about 10 km from Surat railway station.

## About the Institute

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 and was upgraded as a National Institute of Technology with the status of ‘Deemed to be University’ in 2002 and became Sardar Vallabhbhai National Institute of Technology (SVNIT).

SVNIT at present is one of the prestigious Engineering institutions of the country, and has contributed many outstanding engineers in India and abroad. It is running seven undergraduate and seventeen postgraduate programmes and Ph.D. programme in all disciplines of Engineering and applied sciences. Special attention is given to interdisciplinary research.



## About Department

Chemical Engineering Department of SVNIT, Surat was started in 1995. The department has built up a comprehensive research infrastructure with top-notch facilities for carrying cutting-edge teaching and research. The department strives to provide facilities and environment that are conducive for creative and dynamic research work. The department is fully equipped with modern equipments and computer facilities which are being entertained by trained and experienced facul-

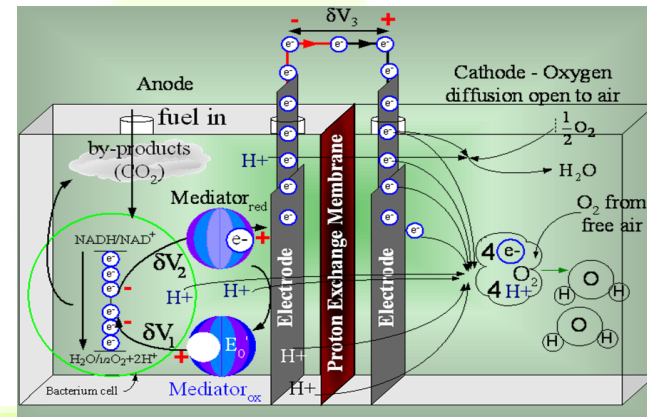
## Program Faculty

Faculty members of NIT, IITs, other institutes of repute, and industry people, reputed consultants will deliver lectures and impart the training.

## About Program

With a population of over 1.3 billion, rapid urbanization and modernization of India is simply inevitable. Most of the cities are under-prepared for the rapid growth, because the infrastructure lacks serious development. Waste management has become a matter of great concern. Residues from municipal and industrial activities in the form of waste often end up in landfills or waster bodies. Such untreated waste leads to environmental and health problems. Thus efficient cost-effective waste management is an absolute necessity going forward. The best way for waste management is its utilization for resource generation.

Currently, the informal sector picks up part of the resources from the streets and bins to earn their living. However, a sizeable portion of organic waste as well as recyclable material goes to landfills untreated. As a strategy, it would be prudent to make efforts to motivate the waste generators to reduce generation in the first place and reuse the waste to the extent possible, guide and enable industry and commerce to enhance recovery



Electrochemical techniques has been utilized for the identification of electrochemical reaction mechanism , reaction rate, resistance, capacitance, and other desirable properties of system or electrodes. There are may ways to utilize various methods of electrochemical analysis to performance and reasons for the output of the bio electrochemical reactors. Different techniques (potentiostat/galvanostat) available in our lab are Cyclic Voltammetry, Electrochemical impedance spectroscopy, Tafel Plot , chronoamperometry and others. These Techniques can be utilized in different fields like supper capaci-

